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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,686	10/22/2003	Frank Yang	MR2349-964	4900
4586	7590	10/02/2006	EXAMINER	
ROSENBERG, KLEIN & LEE 3458 ELLICOTT CENTER DRIVE-SUITE 101 ELLICOTT CITY, MD 21043			ROY, SIKHA	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/689,686

Applicant(s)

YANG ET AL.

Examiner

Sikha Roy

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-5, 8 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

The Amendment, filed on July 18, 2006 has been entered and acknowledged by the Examiner.

Cancellation of claim 2 and addition of new claims 8,9 have been entered.

The new drawing of Figs. 5 and 6 have been entered and are approved by the examiner.

### *Specification*

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

The limitation in claim 1 reciting 'second adhesive being adapted for bonding said frame to said cathode and anode plates without the use of heat, said adhesive being removed by said application of heat' does not have proper antecedent basis in the specification. The specification discloses (page 12 lines 4,5 page 13 lines 7-13) UV glue is spread on the sealing surfaces of the fixing side strips 402, but does not explicitly disclose as bonding without the use of heat and being removed by application of heat.

### *Claim Objections*

Claim 1 is objected to because of the following informalities:

Claim 1 recites 'second adhesive being adapted for bonding said frame'. It has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3-5 and 8,9 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP2002-184329 to Yamada et al. and further in view of Applicant's admitted Prior art (AAPA).

Regarding claim 1 Yamada discloses (Figs. 2,5 English translation [0021], [0032]-[0037]) a field emission display having a self-adhesive frame 18 comprising a cathode plate (conductive cathode layer) 24, having plurality of cathode conductors disposed thereon, an anode plate 16 having plurality of anode conductors the anode plate being disposed in spaced overlaying relationship with respect to the cathode plate, a frame 18 disposed between the cathode and the anode plate having an enclosed space formed internal to the frame, the frame comprising a main body 31 having a closed contour, the main body having a cathode sealing surface and an opposing anode sealing surface, a first adhesive disposed on the cathode plate sealing surface and the

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anode plate sealing surface for sealing the enclosed space responsive to application of heat, a plurality of fixing side strips 31a extending outwardly from an outer side of the main body, each strip having a cathode plate facing surface and an anode plate facing surface.

Yamada does not exemplify the second adhesive disposed on the fixing side strips for bonding the frame to the cathode and anode plates without heat and second adhesive being removed by application of heat while sealing the main frame.

AAPA in the prior art section discloses (Figs. 2,3) use of UV glue for temporary fixing of the cathode and the anode plate and glass glue (in the groove 212 of Fig.2) for permanently attaching the cathode and the anode plates. AAPA further discloses this method improves the occurrence of distortion during fixing method.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use UV glue on the side strips of Yamada which bonds temporarily without application of heat and use glass glue for the first adhesive on the main body of the frame between the cathode and the anode plate as suggested by AAPA for reducing occurrence of distortion during fixing method. The examiner notes here that glass glue being applied by applying heat will result in melting and removal of UV glue during the sealing process.

Regarding claim 3 Yamada discloses the main body frame has a rectangular contour.

Regarding claim 4 Yamada discloses the cathode plate sealing surface and the anode plate sealing surface of FED are parallel.

Regarding claim 5 AAPA discloses the first adhesive is a glass glue which undergoes fritting at 440 to 480°C for bonding the cathode and anode plates and seal the enclosed space between the two.

Regarding claim 8 it would have been obvious to one having ordinary skill in the art to have the second adhesive (UV glue on the side strip) overlaying the first adhesive on cathode and anode plate sealing surfaces so the plates are positioned and fixed with the second adhesive.

Regarding claim 9 Yamada and AAPA disclose the claimed invention except the plurality of fixing strips extending in parallel relationship with cathode and anode conductors. It would have been an obvious matter of design choice to have the fixing side strips extending parallel to the anode and cathode plates since applicant has not disclosed that this configuration solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with fixing side strips as disclosed by Yamada.

### ***Response to Arguments***

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 6,612,888 to Pai et al., U.S. Patent 5,852,484 to Inoue et al. and U.S. Patent 6,847,355 to Nishikawa et al. disclose manufacturing display device by sealing two panels using adhesives.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Sikha Roy*

Sikha Roy  
Patent Examiner  
Art Unit 2879